CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

MONITORING AND REPORTING PROGRAM R5-2012-XXXX
FOR
RIVIERA WEST MUTUAL WATER COMPANY
RIVIERA WEST WATER TREATMENT PLANT
LAKE COUNTY

This Monitoring and Reporting Program (MRP) describes requirements for monitoring raw water, supernatant wastewater, and land application area. This MRP is issued pursuant to Water Code Section 13267. The Discharger shall not implement any changes to this MRP unless and until a revised MRP is issued by the Executive Officer.

Specific sampling locations shall be approved by Central Valley Water Quality Control Board (Central Valley Water Board) staff prior to implementation of sampling activities. All samples shall be representative of the volume and nature of the discharge or matrix of material sampled. The time, date, and location of each grab sample shall be recorded on the sample chain of custody form. Field test instruments (such as those used to measure pH and dissolved oxygen) may be used provided that:

1. The operator is trained in proper use and maintenance of the instruments;
2. The instruments are calibrated prior to each monitoring event;
3. The instruments are serviced and/or calibrated per the manufacturer's recommended frequency; and
4. Field calibration reports are submitted as described in the "Reporting" section of the MRP.

RAW WATER MONITORING

The Discharger shall monitor the quantity and quality of raw water from the lake. The Discharger shall establish permanent monitoring stations within the water treatment plant (WTP) as needed to ensure that all samples are representative of these streams. At a minimum, the Discharger shall monitor raw water as follows:

Constituent	Units	Sample Type	Sampling Frequency	Reporting Frequency
Flow	gpd	Meter observation	Daily	Monthly
Electrical Conductivity	µmhos/cm	Grab	Annually [3]	Annually [3]
Total Dissolved Solids	mg/L	Grab	Annually [3]	Annually [3]
pH	Standard	Grab	Annually [3]	Annually [3]
Dissolved Metals [1]	mg/L	Grab	Annually [3]	Annually [3]
Standard Minerals [2]	mg/L	Grab	Annually [3]	Annually [3]

[1] At a minimum, the following metals shall be included: arsenic, cadmium, chromium, copper, iron, lead, magnesium, manganese, mercury, molybdenum, nickel, and zinc.

[2] Standard Minerals shall include, at a minimum, the following elements/compounds: bromide, chloride, fluoride, and sodium.

[3] Annual monitoring results shall be reported in the Annual Monitoring Report.

SUPERNATANT WASTEWATER MONITORING

One sample of supernatant liquid from the filter backwash tank shall be collected and monitored for the following. Grab samples will be considered representative of the discharge.

Constituent	Units	Sample Type	Sampling Frequency	Reporting Frequency
Flow to LAA	gpd	Meter observation [4]	Daily	Monthly
Electrical Conductivity	µmhos/cm	Grab	Monthly	Monthly
pH	Standard	Grab	Monthly	Monthly
Total Dissolved Solids	mg/L	Grab	Quarterly [5]	Quarterly [5]
Dissolved Metals [1,2]	mg/L	Grab	Quarterly [5]	Quarterly [5]
Standard Minerals [3]	mg/L	Grab	Quarterly [5]	Quarterly [5]
Total Trihalomethanes	µg/L	Grab	Quarterly [5]	Quarterly [5]

[1] At a minimum, the following metals shall be included: arsenic, cadmium, chromium, copper, iron, lead, magnesium, manganese, mercury, molybdenum, nickel, and zinc.
[2] Samples shall be filtered through a 0.45-micron filter prior to preservation.
[3] Standard Minerals shall include, at a minimum, the following elements/compounds: bromide, chloride, fluoride, and sodium.
[4] Or other method as specified in the *Land Application Flow Monitoring Plan* (such as, but not limited to, pump run time and sight gages) to determine supernatant discharge daily flow rates to the land application area.
[5] Quarterly monitoring results shall be reported in the monthly monitoring reports for the last month in each sampling quarter (i.e., March, June, September, and December).

LAND APPLICATION AREA MONTIORING

The Discharger shall monitor the application of filter backwash supernatant to the land application area. Monitoring shall be conducted **daily during the irrigation operations**. Evidence of erosion, ground saturation, tailwater runoff, and the presence of nuisance conditions shall be reported in the monthly monitoring report. If irrigation does not occur during a reporting period, the monitoring report shall so state. Monitoring of the land application areas shall include the following:

Constituent	Units	Type of Sample	Sampling Frequency	Reporting Frequency
Supernatant Application	Inches	Calculated	Daily	Monthly
Local Rainfall	Inches	Local Gauge Station[1]	Daily	Monthly
Total Depth (supernatant plus rainfall)	Inches	Calculated	Daily	Monthly
Acreage Applied	Acres	Calculated	Daily	Monthly
Application Rate	gal/acre•day	Calculated	Daily	Monthly

[1] Kelseyville Station No. A80 4488 00 or other approved rain gauge.

At least **once per week** when filter backwash supernatant is being applied to the land application areas, the entire application area shall be inspected and observations from those inspections shall be documented for inclusion in the monthly monitoring reports. If no irrigation with wastewater takes place during a given month, then the monthly monitoring report shall so state and the monitoring below is not necessary. The following items shall be documented:

1. Evidence of erosion;
2. LAA berm condition;
3. Soil saturation;
4. Ponding;
5. Cut-off ditch that collect potential runoff/tailwater from the land application areas and potential runoff /tailwater to off-site areas; and
6. Potential and actual discharge to surface waters.

SLUDGE DISPOSAL MONITORING

The Discharger shall maintain a written log of all water treatment sludge disposal activities. For each discrete quantity of sludge removed from the facility, the log shall contain the following information:

1. Date,
2. Name and signature of the recorder of the entry,
3. Volume or weight of sludge removed,
4. Name and address of permitted disposal site,
5. Analytical results for any sludge monitoring conducted at the request of the disposal facility,
6. Transport method, and
7. Transporter.

REPORTING

In reporting monitoring data, the Discharger shall arrange the data in tabular form so that the date, sample type (e.g., raw water, wastewater, etc.), and reported analytical result for each sample are readily discernible. The data shall be summarized in such a manner to clearly illustrate compliance with waste discharge requirements and spatial or temporal trends, as applicable. The results of any monitoring done more frequently than required at the locations specified in the Monitoring and Reporting Program shall be reported to the Central Valley Water Board.

As required by the California Business and Professionals Code Sections 6735, 7835, and 7835.1, all Groundwater Monitoring Reports shall be prepared under the direct supervision of a registered Professional Engineer or Geologist and signed by the registered professional.

A. Monthly Monitoring Reports

Monthly reports shall be submitted to the Central Valley Water Board on the **1st day of the second month following sampling** (i.e. the January Report is due by 1 March). At a minimum, the reports shall include:

1. Results of the raw water flow monitoring;
2. Results of supernatant, land application area, and sludge disposal monitoring performed during the month, including all daily and monthly sampling data. Quarterly monitoring results shall be reported in the monthly monitoring reports for the last month of each quarter when sampling occurs.
3. A comparison of monitoring data to the discharge specifications and an explanation of any violation of those requirements. Data shall be presented in tabular format;
4. Copies of laboratory analytical report(s); and
5. A calibration log verifying calibration of all hand-held monitoring instruments and devices used to comply with the prescribed monitoring program.

B. Annual Monitoring Report

An Annual Monitoring Report shall be submitted to the Central Valley Water Board by **1 February** each year. The Annual Report shall include the following:

1. Volume of raw water treated during the previous year.
2. Results of the annual raw water analytical testing.
3. Tabular and graphical summaries of all data collected during the year with data arranged to confirm compliance with the WDRs.
4. A comparison of supernatant monitoring results for the year to the results presented in Finding 15 of the WDRs, and a detailed explanation of significant differences, if any.
5. A detailed description of any operational changes or new systems for sludge handling or dewatering.
6. A summary of sludge disposal practices for the year, including tabulation of all sludge disposal monitoring data.
7. A discussion of compliance and the corrective action taken, as well as any planned or proposed actions needed to bring the discharge into full compliance with the waste discharge requirements.
8. A discussion of any data gaps and potential deficiencies/redundancies in the monitoring system or reporting program.

9. A forecast of influent flows for the coming year, as described in Standard Provision No. E.4.

A letter transmitting the self-monitoring reports shall accompany each report. The letter shall include a discussion of requirement violations found during the reporting period, and actions taken or planned for correcting noted violations, such as operation or facility modifications. If the Discharger has previously submitted a report describing corrective actions and/or a time schedule for implementing the corrective actions, reference to the previous correspondence will be satisfactory. The transmittal letter shall contain the penalty of perjury statement by the Discharger, or the Discharger's authorized agent, as described in the Standard Provisions General Reporting Requirements Section B.3.

The Discharger shall implement the above monitoring program as of the date of this Order.

Ordered by: _____
PAMELA C. CREEDON, Executive Officer

_____
(Date)

LLA:01/13/12

MONITORING AND REPORTING PROGRAM R5-2012-xxxx
EXAMPLE MONTHLY MONITORING REPORT

[Note: The following is a suggested monthly report format that complies with the reporting requirements set forth in the MRP and the Standard Provisions and Reporting Requirements. The Discharger is not required to use the example monthly monitoring report, but all monthly monitoring reports must comply with the MRP and the Standard Provisions and Reporting Requirements.]

DATE: _____

TO:

Central Valley Regional Water Quality Control Board
11020 Sun Center Drive, Suite 200
Rancho Cordova, CA 95670

FROM:

Riviera West Mutual Water Company

Attention: WDR Compliance and Enforcement Unit

MONTHLY MONITORING REPORT FOR _____ _____
(month) (year)

RIVIERA WEST MUTUAL WATER COMPANY
RIVIERA WEST WATER TREATMENT FACILITY
LAKE COUNTY

Enclosed is the monthly monitoring report for the Riviera West Mutual Water Company Water Treatment Facility in Lake County. The report covers the monitoring period noted above.

The following attachments comprise this monitoring report:

A. Flow Monitoring Summary
B. Supernatant Wastewater Monitoring Summary
C. Land Application Area Monitoring Summary
D. Land Application Area Weekly Inspection Summary
E. Violation Reporting
F. Facility Inspection and Repair Report and Violation Summary
G. Field instrument calibration logs dated _____
H. Analytical laboratory report(s) dated _____

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine.

_____ _____
(signature) (date)

_____
(printed name)

_____ _____
(month) (year)

A. FLOW MONITORING

Day of Month	Raw Water Flow (gpd)	Supernatant Wastewater Flow to LAA (gpd)
Monitoring frequency:	Daily	Daily
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		
21		
22		
23		
24		
25		
26		
27		
28		
29		
30		
31		
Average		

gpd = gallons per day

_____ _____
(month) (year)

B. SUPERNATANT WASTEWATER MONITORING

Sampling Date			
Sample Location			
Sample Type			
Constituent/Parameter	**Sampling Frequency**	**Analytical Result**	**Units**
Electrical Conductivity	Monthly		µmhos/cm
pH	Monthly		Std units
Total Dissolved Solids	Quarterly[1]		mg/L
Arsenic	Quarterly[1]		mg/L
Cadmium	Quarterly[1]		mg/L
Chromium	Quarterly[1]		mg/L
Copper	Quarterly[1]		mg/L
Iron	Quarterly[1]		mg/L
Lead	Quarterly[1]		mg/L
Magnesium	Quarterly[1]		mg/L
Manganese	Quarterly[1]		mg/L
Mercury	Quarterly[1]		mg/L
Molybdenum	Quarterly[1]		mg/L
Nickel	Quarterly[1]		mg/L
Zinc	Quarterly[1]		mg/L
Bromide	Quarterly[1]		mg/L
Chloride	Quarterly[1]		mg/L
Fluoride	Quarterly[1]		mg/L
Sodium	Quarterly[1]		mg/L
Total Trihalomethanes	Quarterly[1]		µg/L

[1] Results to be included in the monthly report for the last month in each sampling quarter (i.e., March, June, September, and December).

C. LAND APPLICATION AREA MONITORING

Parameter:	Supernatant Application	Local Rainfall	Total Depth (supernatant plus rainfall)	Acreage Applied	Application Rate
Monitoring Frequency:	Daily	Daily	Daily	Daily	Daily
Sample Type:	Calculated	Rain Gauge Observation	Calculated	Calculated	Calculated
Units:	inches	inches	inches	acres	gal/acre•da
Day of the Month					
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					
31					

_____ _____
(month) (year)

D. LAND APPLICATION AREA WEEKLY INSPECTIONS SUMMARY

Inspection Date	Inspector	Problems identified, repairs recommended, repairs completed, and date of completion
Erosion (Weekly)		
LAA Berm (weekly)		
Soil Saturation (weekly)		
Ponding (weekly)		
Cut-off Ditch (weekly)		

_____ _____
(month) (year)

Discharge to Surface Water (Weekly)		

_____ _____
(month) (year)

E. VIOLATION REPORTING

Discuss all violations of the WDRs and MRP during the monitoring period. For each violation, explain the reason(s) for the violation and steps that will be taken to prevent recurrence.